

**Listing of the Claims:**

1-52. (Canceled)

53. (Currently Amended) A library of candidate target binding fragments (CTBFs) (CTBF's) wherein each fragment is an organic molecule less than 2000 daltons and comprises a homocyclic aromatic radical, a heterocyclic aromatic radical or a heterocyclic radical a small organic molecule and each member of the library is represented by the formula:



wherein R<sup>8</sup> is

a straight chain alkyl of 1 to 10 carbon atoms that is substituted with an amino;

and wherein the library comprises two CTBFs ~~CTBF's~~ that are combined together ~~in a microtiter well~~ and the CTBFs are sufficiently soluble in aqueous solutions to be tested for their ability to bind to a target biological molecule.

54 – 66. (Canceled)

67. (New) The library of claim 53, wherein the CTBFs are small organic molecule of less than about 750 daltons.

68. (New) The library of claim 53, wherein the CTBFs are selected from the group consisting of aldehydes, ketones, oximes, O-alkyl oximes, O-methyl oximes, hydrazones, semicarbazones, carbazides, primary amines, secondary amines, N-methylamines, tertiary amines, N,N-dimethylamines, N-substituted hyiazines, hydrazides, ethers, thioethers, thioesters, carboxylic acids, esters, amides, ureas, carbamates, carbonates, ketals, thioketals, acetals, thioacetals, aryl halides, aryl sulfonates, alkyl halides, alkyl sulfonates, aromatic compounds, heterocyclic compounds, anilines, alkenes, alkynes, amino alcohols, oxazolidines, oxazolines, thiazolidines, thiazolines, enamines, sulfonamides, epoxides, and aziridines.

69. (New) The library of claim 68, wherein the CTBFs are selected from the group consisting of aromatic compounds and heterocyclic compounds.

70. (New) The library of claim 53, wherein the CTBFs are selected from the group consisting of chromones, phenols, furans or phenoxides.

71. (New) The library of claim 53, comprising at least about 500 different compounds.

72. (New) The library of claim 53, comprising at least about 1,000 different compounds.

73. (New) The library of claim 67, wherein the CTBFs are selected from the group consisting of aldehydes, ketones, oximes, O-alkyl oximes, O-methyl oximes, hydrazones, semicarbazones, carbazides, primary amines, secondary amines, N-methylamines, tertiary amines, N,N-dimethylamines, N-substituted hyiazines, hydrazides, ethers, thioethers, thioesters, carboxylic acids, esters, amides, ureas, carbamates, carbonates, ketals, thioketals, acetals, thioacetals, aryl halides, aryl sulfonates, alkyl halides, alkyl sulfonates, aromatic compounds, heterocyclic compounds, anilines, alkenes, alkynes, amino alcohols, oxazolidines, oxazolines, thiazolidines, thiazolines, enamines, sulfonamides, epoxides, and aziridines.

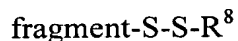
74. (New) The library of claim 73, wherein the CTBFs are selected from the group consisting of aromatic compounds and heterocyclic compounds.

75. (New) The library of claim 67, wherein the CTBFs are selected from the group consisting of chromones, phenols, furans or phenoxides.

76. (New) The library of claim 73, comprising at least about 500 different compounds.

77. (New) The library of claim 76, comprising at least about 1,000 different compounds.

78. (New) A library of compounds wherein each compound of the library is represented by the formula:



wherein  $R^8$  is

a straight chain alkyl of 1 to 10 carbon atoms that is substituted with an amino;

and wherein the library comprises two compounds that are combined together and the fragments are sufficiently soluble in aqueous solutions to be tested for their ability to bind to a target biological molecule.

79. (New) The library of claim 78, wherein the fragments are small organic molecule of less than about 750 daltons.

80. (New) The library of claim 78, wherein the fragments are selected from the group consisting of aldehydes, ketones, oximes, O-alkyl oximes, O-methyl oximes, hydrazones, semicarbazones, carbazides, primary amines, secondary amines, N-methylamines, tertiary amines, N,N-dimethylamines, N-substituted hyiazines, hydrazides, ethers, thioethers, thioesters, carboxylic acids, esters, amides, ureas, carbamates, carbonates, ketals, thioketals, acetals, thioacetals, aryl halides, aryl sulfonates, alkyl halides, alkyl sulfonates, aromatic compounds, heterocyclic compounds, anilines, alkenes, alkynes, amino alcohols, oxazolidines, oxazolines, thiazolidines, thiazolines, enamines, sulfonamides, epoxides, and aziridines.

81. (New) The library of claim 80, wherein the fragments are selected from the group consisting of aromatic compounds and heterocyclic compounds.

82. (New) The library of claim 78, wherein the fragments are selected from the group consisting of chromones, phenols, furans or phenoxides.

83. (New) The library of claim 78, comprising at least about 500 different compounds.

84. (New) The library of claim 83, comprising at least about 1,000 different compounds.

85. (New) The library of claim 79, wherein the fragments are selected from the group consisting of aldehydes, ketones, oximes, O-alkyl oximes, O-methyl oximes, hydrazones, semicarbazones, carbazides, primary amines, secondary amines, N-methylamines, tertiary amines, N,N-dimethylamines, N-substituted hyiazines, hydrazides, ethers, thioethers, thioesters, carboxylic acids, esters, amides, ureas, carbamates, carbonates, ketals, thioketals, acetals, thioacetals, aryl halides, aryl sulfonates, alkyl halides, alkyl sulfonates, aromatic compounds, heterocyclic compounds, anilines, alkenes, alkynes, amino alcohols, oxazolidines, oxazolines, thiazolidines, thiazolines, enamines, sulfonamides, epoxides, and aziridines.

86. (New) The library of claim 85, wherein the fragments are selected from the group consisting of aromatic compounds and heterocyclic compounds.

87. (New) The library of claim 79, wherein the fragments are selected from the group consisting of chromones, phenols, furans or phenoxides.

88. (New) The library of claim 79, comprising at least about 500 different compounds.

89. (New) The library of claim 88, comprising at least about 1,000 different compounds.